ON THE GYRINIDAE OF THE NERBUDDA RIVER.

By GEORG OCHS, *Frankfurt a/Main.*

Through the kindness of Dr. Hem Singh Pruthi, Assistant Superintendent, Zoological Survey of India, Calcutta, a large collection of Gyrinidae, made during the survey of the Nerbudda river, was placed in my hands for identification. The collection contains no new species, which seems to indicate that we are already pretty well acquainted with the Gyrinid fauna of India. For this credit is due to the great zeal of Indian collectors and to the praiseworthy activity of the scientific institutions in India for sending the material promptly to specialists for study. Nevertheless the collection has proved of great interest, as, except for a small collection received sometime ago from Dr. C. F. C. Beeson of the Forest Research Institute at Dehra Dun, practically no members of the family have previously been collected from the Central Provinces of India.

Gyrinus convexiusculus Macleay.

Sta. 1. Rewa State, 3,300 ft., Amarkantak, a big tank—the source of the Nerbudda river. I/1927. (Hem Singh Pruthi). 1 specimen.

Sta. 5. Rewa State, 3,300 ft., Amarkantak, (*id.*). 2 specimens.

Sta. 12. Rewa State, 3,300 ft., a big pool near Amarkantak. I/1927. (*id.*). 96 specimens.

Sta. 13. Rewa State, 3,000 ft., ½ mile beyond Dhud Dhara falls. II/1927. (*id.*). 3 specimens.

Sta. 16. Rewa State, 3,300 ft., Baratnala, a tributary of the river, 1½ miles from Amarkantak. II/1927. (*id.*). 20 specimens.

Sta. 30. Rewa State, 2,700 ft., near Sarai. II/1927. (*id.*). 8 specimens.

——Rewa State, Umaria, Jaithari Range, 19-xi-1927 (C. F. C. Beeson).

This is a widely distributed species, which was described from Australia. It was later recorded from New Zealand as *huttoni* Pascoe, and occurs in New Caledonia, Sumatra, Annam and Ceylon. It is also stated to occur in South-China and Tibet, and I have seen a single specimen labelled " Java," but this record appears doubtful. Other Indian localities are : Madras ; Madras Town, X/1913 (1 specimen flew into a finger-bowl on a dinner table) ; Palni Hills, Poubat-Havangi, 6,900 ft., 27-viii-1922 (Kemp) ; Nilgiri hills, Coonoor river, 1-xi-1924 (Bhasin) ; Mysore, 4,100 ft., 25-iii—29-iv-1913 (P. S.) ; Bangalore (Cameron), 21—25-i-1924 (Fletcher), 20-viii-1925 (Beeson) ; Bombay Pres., Satara dist., Medha, *ca.* 2200 ft., Yenna Valley, 27-ii—4-iii-1918, in small pools at the edge of the river (Annandale) ; Eastern Himalayas (R. P. Bertrand); Himalayas (R. P. Castets, 1904) ; Nepal, Soondrijal, x-1906 (R. Hodgart) ; S. Shan States, 4,000,4,500 ft., Burma ; Hsamonghkam, 13—14-ii-1917 ; Kalaw, 10-iii-1917 (Gravely).

The older authors confounded this species with *G. nitidulus* Fab., which, though closely allied, is however specifically distinct and inhabits the Isles of Mauritius and Reunion. Other allied species are found in Madagascar and in South-Africa.

Dineutus (Gyrinodineutus) unidentatus Aubé.

Sta. 39. Rewa State, 3 miles from Koilari, 2,650 ft., II|1927. (H. S. Pruthi). 1 specimen.

The type-locality of the species was given as Brazil, but this is certainly erroneous. It is widely distributed in India and also occurs in Ceylon, Siam, Tonkin, China, Java and the Philippine Islands (as subsp. *curtulus* Reg.). The various Indian localities from where it has been collected are :—Bengal : Calcutta ; Berhampore Court ; Konbir (P. Cardon) ; Bowring ; Sherpur Town, Mymensingh, 28-x-1909 (Chaudhuri) ; Chota-Nagpur : Manbhum (K. Hallowes) ; Orissa-Coast : Puri, 14—27-x-1923 (S. L. Hora & B. N. Chopra) ; Chilka Lake, Sta. 139 ; Ganjam dist., Rambha, 21-ix-1913 (Annandale) ; Madras : Pondichery ; Tranquebar (Daldorf) ; Madura ; Karachi (teste Kerherve) ; U. P., Lucknow, 8-xi-1907, 22-i-1908 ; Bihar : Pusa, 1-xi-1916, in river (Singh), 28-x-1921, 27—29-iii-1924 (Rangi) ; Purneah dist., Kierpur, 13-ix-1915, in flooded paddy field (Paiva), Burma ; Peninsular Siam ; Perak.

A closely allied species, *D. subspinosus* Klug, occurs in Mauritius, Madagascar and Africa. It is, like the preceding species, a typical example of migration of these beetles from Malaya to Africa across the land-bridge of the earlier geological times—Lemuria.

Dineutus (Protodineutus) indicus Aubé.

Sta. 4. Rewa State, a southern tributary of the river, one mile from Amarkantak, 3,300 ft., I/1927. (H. S. Pruthi). 7 specimens.
Sta. 7. Rewa State, the Sone river at Amarkantak, I/1927. (*id.*). 39 specimens.
Sta. 11. Rewa State, just beyond the Kapilldhara falls, 3,300 ft., I/1927. (*id.*). 25 specimens.
Sta. 63. Central Prov., Mandla dist., Kharmer Nullah, about a mile below Sakka, 9-vi-1927. (B. N. Chopra). 2 specimens.
——Rewa State, Amarkantak, 3,500 ft., 21-xi-1927 (C. F. C. Beeson).
——Rewa State, Umaria, Rewa, Lalpur, in stream, 19-xi-1927 (C. F. C. Beeson).

This species occurs throughout India from Ceylon to the Himalayas and from Baluchistan to Assam and has been collected from numerous localities.

The subgenus, to which this species belongs, is an African one, and a very closely allied species has been collected in Hadramaut (S. Arabia). These records appear to indicate that this is probably a case of re-emigration from Africa to India *viâ* Arabia at a probably much later date than that of the migration of *D.* (*G.*) *unidentatus* from Malaya to Africa referred to above.

Orectochilus haemorrhous Rég.

Sta. 39. Rewa State, 3 miles from Koilari, 3,650 ft. II/1927. (H. S. Pruthi), thousands of specimens.
Sta. 42. Rewa State, near Khetgaon, 2,650 ft., II/1927. (*id.*). 3 specimens.
Sta. 63. Centr. Prov., Mandla dist., Kharmer Nullah, about a mile below Sakka, 9-vi-1927. (B. N. Chopra). 1 specimen.
Sta. 65. Centr. Prov., Mandla dist., Burhner river near Mohgaon, 1,500 ft. XI/1927. (H. S. Pruthi). 1 specimen.
Sta. 75. Centr. Prov., between Dupta and Gorakpur, 1,500 ft., XI/1927. (*id.*). 25 specimens.
Sta. 87. Centr. Prov., at Padmi, XII|1927. (*id.*). 3 specimens.
Sta. 96. Centr. Prov., at Barham Kalan, current slow, XII/1927. (*id.*). 4 specimens.

This species was described from Madras and has since been taken at Bangalore, 3,000 ft., 12-x-1910 (Annandale) ; Travancore : Alleppey,

from pond, I/1928 (H. S. Rao & M. Sharif); Chota Nagpur: Chaibassa, Singbhoom dist., 2—3-iii-1923 (F. H. Gravely) and Chakradharpur, Sanjai river, 8—10-ii-1918 (N. Annandale & F. H. Gravely); Bihar: Pusa, 23-iii-1926 (G. P. Pillai).

Régimbart records a varietal form from the lower reaches of the Himalayas (Castets, 1904) and it seems that the specimens from Pusa are very near it. The large series from Rewa State, Sta. 39, exhibits, however, a great degree of variation in the inner outline of the tomentous border of elytra, and I doubt whether it is possible to separate the varietal form, which is mainly based on this character.

Orectochilus fletcheri Ochs.

Sta. 39. Rewa State, 3 miles from Koilari, 2,650 ft., II/1927. (H. S. Pruthi). 7 specimens.

Described from S. Malabar: Kollengode and collected moreover in Chota Nagpur: Chaibassa, Singhbhoom dist., 2—3-iii-1913 (F. H. Gravely) and Chakradharpur, Sanjai river, 8—10-ii-1918 (N. Annandale & F. H. Gravely).

There is a certain difference between the typical specimens and those from Central India, chiefly in the males, in that the broadening of the tomentous border of elytra begins nearer the base in the typical specimens.

Orectochilus ritsemai Rég.

Sta. 39. Rewa State, 3 miles from Koilari, 2,650 ft.; II/1927. (H. S. Pruthi). 22 specimens.

Sta. 82. Centr. Prov., at Mandla, XI/1927. (*id.*). 1 specimen.

Sta. 96. Centr. Prov., at Barham Kalan, current slow, XII/1927. (*id.*). 15 specimens.

Sta. 97. Centr. Prov., at Barham Kalan, current rapid, XII/1927. (*id.*). 1 specimen.

Sta. 101. Centr. Prov., at Sandia, XII/1927. (*id.*). 7 specimens.

This species was described from an old specimen labelled "Java"; this locality, however, seems doubtful. In my collection there is a specimen with the same provenance, which I found together with a specimen of the Indian species, *Orectochilus cylindricus* Rég., and I believe that the indication "Java," in both cases, is erroneous. *O. ritsemai* was collected recently in Burma: Mergui, I/1927 (Parker) and in Tonkin: Hoah Binh (de Cooman) and Hat-Lon-Man, 29-vii-1918 (V de Salvaza).

Orectochilus limbatus Rég.

Sta. 12. Rewa State, a big pool near Amarkantak, 3,300 ft., I/1927 (H. S. Pruthi). 2 specimens.

Sta. 36. Rewa State, near Koilari, 2,650 ft., II/1927. (*id.*). 1 specimen.

Sta. 49. Rewa State, a tributary, Kornu Nala, at Pongatola, 5 miles from Khetgaon, III/1927. (*id.*). 1 specimen.

Sta. 62. Centr. Prov., Mandla dist., Deo Nullah, a little below Sakka, 8-vi-1927. (B. N. Chopra). 27 specimens.

Sta. 63. Centr. Prov., Mandla dist., Kharmer Nullah, about a mile beyond Sakka, 9-vi-1927. (*id.*). 15 specimens.

Sta. 66. Centr. Prov., Mandla dist., Burhner river near Mohagaon, stones on the sides of the water channel, 16—17-xi-1927. (H. S. Pruthi). 2 specimens.

Sta. 65. Centr. Prov., Mandla dist., Burhner river near Mohagaon, XI-1927. (*id.*). 16 specimens.

Sta. 75. Centr. Prov., between Dupta and Gorakpur, XI/1927. (*id.*). 60 specimens.

Sta. 82. Centr. Prov., at Mandla, XI/1927. (*id.*). 3 specimens.

——Centr. Prov., Mandla, 21—23-v-1927. (B. N. Chopra). 101 specimens.

Sta. 84. Centr. Prov., Mandla, stones near the river channel, XI/1927 (H. S. Pruthi). 80 specimens.

Sta. 87. Centr. Prov., at Padmi, XII/1927. (*id.*). 1 specimen.

Sta. 101. Centr. Prov., at Sandia, XII/1927. (*id.*). 5 specimens.

——Khandesh, Nerbudda river, 19-v-1903. (R. T. Bell Coll., Brit. Mus.).

——Rewa State: Umaria, Rewa, Jaithari Range, 19-xi-1927 (Beeson).

This species was described by Régimbart from a single female specimen, labelled " Ind. or.", in the old collection of Wehncke, now incorporated in collection Oberthür. He later recorded it from Barway (R. P. Cardon) and Khandesh (R. T. Bell); from the latter locality I have seen some specimens as noted above.

Orectochilus gravelyi Ochs (1925, *Rec. Ind. Mus.* XXVII, p. 199) from Chota Nagpur is identical with *O. limbatus* Rég., as is clear on examination of the Khandesh specimens and as I was informed by Mr. Peschet of Paris, to whom I sent specimens of *O. gravelyi*, and who compared these with the specimens in the collection of Régimbart. The only difference he could state was that the tomentous border of elytra was more regularly and not convexly broadened posteriorly in Régimbart's specimens, and, indeed, among the large series from Chota Nagpur, Central India, and other localities which I have seen since there is a certain variation in respect to this character.

To the localities mentioned above and those cited in 1925 must be added: Chota Nagpur, Chakradharpur, Sanjai river, 8—10-ii-1918 (N. Annandale and F. H. Gravely); Bombay Pres., 2,250 ft., W. Ghats, Matheran, Charlotte Lake, 26-iii-1908 (G. B. Longstaff); Base of Nilgiris, the edge of Bhavani river, 10 miles from Mettupalayam, *ca.* 1,800 ft., 20-viii-1918 (N. Annandale); Ceylon (Lewis, Brit. Mus.).

From Chakradharpur, Sanjai river, 8—10-ii-1918 (N. A. & F. G.), there are some larvae which belong probably to the above species, to *O. fletcheri* or to *O. haemorrhous*, which were taken with it at that locality.

These larvae, 5 specimens in all, are 13, 13, 13, 11 and 8 mm. respectively in length. The body is relatively slender (about $1\frac{1}{4}$ mm. wide and 13 mm. long) and cylindrical, except the head, which is flattened dorso-ventrally. The head is subquadrate, about twice as long as wide, narrowed posteriorly in a short neck; it is wholly chitinous and somewhat darker than the less strongly chitinised parts of the body. The eyes, the lateral parts of the neck, two spots on the ventral surface near the mouth are black. The anteriorly almost straight and truncate clypeus confirms these as *Orectochilus* larvae. The usual six stemmata are broadly oval or nearly circular; of the three dorsal ones the middle lies nearest to the vertex, and of the three ventral ones, the two last are the smallest, and are arranged in the form of an irregular ellipse; the first ventral stemmata is situated slightly behind and below the first dorsal one. The palpi are relatively long and slender, compared to those of the larva of *Gyrinus natator* L., a single specimen of which I possess for comparison. The

prothorax is protected by chitinous plates dorsally and ventrally, and is naked only at the sides. The other segments of the body are not heavily chitinised and are paler in colour. There are only some small blackish marks at the base of each leg. All the lateral gills seem fringed with hairs.

Larvae of Indian Gyrinidae were described by Nowrojee (1912, *Mem. Dept. Agric. Ind.*, Ent. Ser. II, 9, p. 177, pl. xxvi, fig. 5, probably of *Dineutus* (*Gyrinodineutus*) *unidentatus* Aubé) and by Lesne (1902, *Bull. Soc. Ent. France*, p. 86, probably of *Dineutus* (*Protodineutus*) *indicus* Aubé). The chief distinctive characters seem to be the following:

A. All lateral gills fringed with hairs.
— The first pair of gills maned (body large and broad, clypeus 4-dentate) .. .. .. *D. indicus* (*Protodineutus*).
B. Prothorax not protected ventrally (body broad, flattened, clypeus ?) .. .. .. *D. unidentatus* (*Gyrinodineutus*).
— Prothorax protected ventrally (body slender, cylindrical, clypeus not dentate) .. .. *Orectochilus* sp.

Orectochilus discifer Walk.

Sta. 7. Rewa State, the Sone river at Amarkantak, 3,300 ft., January, 1927 (H. S. Pruthi). 12 specimens.

Sta. 28. Centr. Prov., Satpura Hills, Pachmarhi (Gravely). 3 specimens.

——Rewa State, Amarkantak, 3,500 ft., 21-xi-1927 (Beeson).

—— Rewa State, Umaria Rewa, Jaithari Range, in stream, 21-xi-1927 (Bhatia).

Described from Ceylon, also occurring from South India to Central India: Travancore, Wallardi; Cochin State, Forest Tramway from Parabikulam to Kavalai, 1,000-2,000 ft., 24-ix-1914 (F. H. Gravely); S. Malabar, Dhoni Forest, 1,500-4,000 ft., 15—26-v-1923 (E. Barnes); Tenmalai, Courtallum, 28-x-1926 (H. S. Rao); Nilgiris, torrential stream below Benhope Bungalow, 21-x-1925 (S. L. Hora); Madras, Nilambur, in stream, 25-v-1927 (S. N. Chatterjee); Bombay Pres., Poona dist., Khandala, *ca.* 2,500 ft., 6—10-iii-1918 (Annandale); Bombay Pres., Khandala, from pools in rocky stream VII/1919 (R.B.S. Sewell). The localities of specimens labelled " Bengal " and " Calcutta " in my collection are doubtful and so are the specimens from Malacca referred to this species by Régimbart.

Orectochilus productus Rég.

Sta. 12. Rewa State, a big pool close to Amarkantak, 3,300 ft., I/1927 (H. S. Pruthi). 1 specimen.

Sta. 75. Centr. Prov., the river between Dupta and Gorakpur, 1,500 ft., XI/1927. (*id.*). 1 specimen.

—— Centr. Prov., Mandla dist., Dindori, 6-vi-1927 (B. N. Chopra). 1 specimen.

—— Rewa State: Umaria, Rewa, Jaithari Range, 19-xi-1927 (Beeson). 1 specimen.

This is a widely distributed species, ranging from South India to Eastern Himalayas and Assam, Burma, Malay Peninsula, Siam, Cambodia, Tonkin, Annam and Borneo. It is said to occur also in S. China. Indian localities are: Cochin State, Chalakudi 14—30-ix-1914 (Gravely); Travancore, Kerumaadi, S. end of Vembanaad Lake, 6-xi-1908

(Annandale); Madras X/1921 (H. C.); Chota Nagpur, Manbhum (Hallowes); Bihar, Pusa 2-iv-1912 (Fletcher) 27-xii-1904 (P. C. P.), Bankipur, 25-x-1911 (Fletcher); Bengal, Calcutta, Garia, 13-xii-1910 (Kemp), Konbir, Sunderbunds; Base of E. Himalayas, Siliguri 3—4-vi-1911 (N. A. & S. K.); Garo Hills, Damalgiri, Ganool river, VIII/1917 (S. Kemp); Assam, Mangaldai, Central Tank, 6-i-1911 and Seali Kusi 8-i-1911 (Kemp); N.E. Assam, Dibrugarh (Abor Exp., 17—19-xi-1911 (Kemp); Burma, Bassein (Schmidt), Rangoon 26-ii-1908, 10-i-1927, in paddy pool (F. J. Meggitt), 29-i-1927 (*id.*), 14-xii-1927 (T. D. A. Cockerell); Lower Burma, Amherst dist., Kawkareit, 19—20-xi-1911 and outside Farm Caves near Moulmein, 17-xi—4-xii-1911 (Gravely).

Orectochilus indicus Rég.

Sta. 96. Centr. Prov., the river at Barham Kalan, current slow, XII|1927 (H. S. Pruthi). 1 specimen.

Hitherto known from Ceylon and from Bangalore, alt. *ca.* 3000 ft., 13-x-1910 (Annandale) and Chikkangalur (Tabourel). Régimbart's records from Bengal seem doubtful.

General Remarks.

The large collection, details of which are given above, represents probably very completely the Gyrinid fauna of Central India. It comprises 10 species, 3 of which, *viz.*, *G. convexiusculus*, *D. indicus* and *O. discifer* seem to frequent the higher altitudes (3,300-3,500 ft.), where the other species are either entirely absent or are found in very small numbers, and even these may have got there by accident. On the other hand, these 3 species are almost completely wanting at altitudes below 3,000 ft., where *O. haemorrhous*, *O. fletcheri*, *O. ritsemai* and *O. limbatus* predominate. *D. unidentatus* and *O. productus*, which are represented by single specimens, belong apparently to a fauna which is generally confined to still lower altitudes; and a certain difference in the faunas of areas of different altitudes seems to be indicated by the distribution of the different species in Central India. *O. indicus* belongs to a group the representatives of which have been rarely collected and which probably have a restricted distribution.

None of the above 10 species is endemic in Central India, and it is clear, in view of the central situation of the area in question, that a mixed fauna must be found there. *O. limbatus* Rég. is probably the characteristic species of Central India, as it has been collected there very frequently, and though its range extends to South India and Ceylon, it is rather rare in those parts.

There are several indications of a relationship between the Gyrinid fauna of Central India and that of South India, but several characteristic species of the latter region (especially *Aulonogyrus obliquus* Walk. and *Orectochilus semivestitus* Guer.) are wanting in Central India. There are nevertheless important differences between the two faunas. The difference between the Gyrinid fauna of Central India and that of the Himalayas and even that of the Gangetic Plain, with which it is the most contiguous, are still more marked, as the representatives of the genus

Orectochilus known from these areas are very different and only exceptionally we find species common to these regions.

The following table (pp. 248, 249) illustrates the distribution of the Indian species of Gyrinidae over the different faunal districts. It shows a great decrease in the numbers of species at lower altitudes, as for instance in the Gangetic Plain, which is correlated with the fact that certain species and especially most of the Orectochili are apparently found in rapid-running waters which are only found at high altitudes. In the plains and near the coast round the Gulf of Bengal we find only two species, *viz. D. spinosus*, Fab.[1] and *O. productus*, Rég., which seem to be characteristic for these areas.

On comparing the Gyrinid fauna of different areas one finds that Ceylon has a comparatively richer fauna and that it comprises a large number of endemic species; this is probably due to the mountainous character of the country and insular isolation. It may also be attributed to the circumstance that in pre-historic times Ceylon formed a part of an extensive continent or land-bridge running in the east to Malaysia and probably including in it the Andaman Islands. Most of the relationships between the faunas of Ceylon, South India and Central India on the one hand, and those of Malaysia and Burma on the other, may, therefore, be explained as being due to a migration in the eastern direction over this land-bridge rather by the direct route *viâ* Bengal to Central India; this is also confirmed by the decrease in the number of the species from South India to Central India. The fauna of South India is closely allied to that of Ceylon, but it contains a large number of endemic species; in Central India also we find the same species, though in much smaller numbers. The Gangetic Plain forms a distinct barrier against the interchange of the faunas of these southern provinces on the one hand, and those of the Himalayas in the north and of the Eastern provinces (Assam and Burma) in the east on the other. The almost complete absence of Gyrinidae in the Western provinces is perhaps due to insufficient field work, or may be attributed to the arid character of these parts. In Kashmir Palaearctic species are the common forms. The Himalayan fauna shows many relations to that of Assam and Burma, but the Gyrinid fauna of the Western Himalayas is slightly different from that of the Eastern. Several Himalayan species, however, which apparently do not occur in Assam and Burma, are found in Upper Tonkin. We are not fully acquainted with the Gyrinid fauna of Assam, but it comprises, so far as is known, several Himalayan and Burmese elements, though most of these forms occur as distinct varieties; there

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[1] *D. spinosus*, Fab. is generally confined in India to low altitudes. A very striking varietal form of it, which I describe below, was, however, collected in Nepal.

D. spinosus Fab. subsp. *nepalensis*, nov.

A little larger than the typical form, especially the male, which is mostly larger in size than the female, unlike what is the rule in the typical form. The specimens of the new subspecies are more broadly oval and the spinal terminations of their elytra are shorter, thus resembling very greatly *D. orientalis* Mod. (= *marginatus* Sharp), which is, however, easily distinguished in the female sex by the second (visible) sternite being produced in the middle of its posterior margin as a large lobe covering the two following sternites. This is a very peculiar character, which has not been noticed so far.

Holotype from Nepal Valley. Soondrijal, X/1906 (*R. Hodgart*) in the Indian Museum; many paratypes in the Indian Museum and in my collection.

are further many endemic species representing the peculiar characteristics of this interesting faunal area. The number of species known from Burma is very large, but endemics are not very numerous. The Burmese fauna shows a close relationship with that of Tonkin, the Malay Peninsula and the Sunda Islands, but the species of these areas are generally very widely distributed.

	Ceylon.	South-India.	Central India.	Valley of the Ganges.	Kashmir.	Western Provinces.	Himalayas. West.	Himalayas. East.	Assam.	Burma.	Andaman Islands.
Aulonogyrus—											
obliquus	+	+									
Paragyrinus—											
arrowi							+	+	+		
Gyrinus—											
ceylonicus	*										
convexiusculus.	+	+	+	?				+		+TM	
distinctus					+						
smaragdinus					(pal.)				+	+T	
Dineutus—											
(*Gyrinodineutus*)											
unidentatus.	+	+	+	+		?				?TM	
spinosus	?	+		+			+	+	+	+M	
subsp. nepalensis								+			
(*Protodineutus*)											
indicans.	+	+	+	?	?	+	+	+	?-		
(*Porrorhynchus*)											
indicans.	*										
marginatus										+TM	
Orectochilus—											
aeneipennis		*									
andamanarum											*
andamanicus				?						+	+
? angusticinctus										+T	
annandalei		*									
apicalis										+T	
birmanicus										+T	
cameroni							*				
sp. dist. ?							+				
cardoni		+	+								
cardiophorus										*	
subsp. peguensis										+	
castetsi		*									
cavernicola									*		
ceylonicus	*	?									
choprai									*		
sp. dist.?									+		
coimbatorensis		*									
cordatus										+T	
coronatus									*		
corpulentus										*	
cribratellus										+	
subsp. metallescens								+			
subsp. ?									+		

* = endemic species.
T = occurs also in Tonkin.
M = occurs also in the Malay Peninsula or in the Sunda Islands.

	Ceylon.	South-India.	Central India.	Valley of the Ganges.	Kashmir.	Western Provinces.	Himalayas. West.	Himalayas. East.	Assam.	Burma.	Andaman Islands.
Orectochilus—contd.											
cuneatus							+	+			
cylindricus				*							
desgodinsi								+			
subsp. assamensis									+		
dilatatus	*	?									
discifer .	+	+	+	?							
fairmairei	*										
figuratus							?	+			
sp. dist. ?								+			
fletcheri		+	+								
fraternus	*										
gangeticus				+				+			
haemorrhous		+	+	+				+			
indicus .	+	+	+	?							
intermedius										*	
kempi									*		
limbatus	+	+	+								
? lucidus										+	
marginipennis .										+	
subsp. angustilimbus							+				
„ ?									+		
metallicus							+	+T			
murinus							+	+T			
neglectus.							*				
sp. dist. ? .								+			
oblongiusculus							?	+T			
subsp. feai										+	
„ ? .									+		
„ parkeri							+				
productus	+	+	+	+				+	+	+TM	
? punctilabris										+TM	
punctulatus		*									
ritsemai .			+							+T	
? rivularis .									+T		
scalaris subsp. parvulus										+	
semivestitus		*									
similis									*		
sublineatus									?T		
sulcipennis										+T	
tomentosus										*	
trianguliger										*	
villosovittatus										+T	
volubilis .									*		
wehnckei.	*										
	15	18	11	6	1	1	11	17	16	25	2
	1?	2?	—	5?	1?	1?	2?	—	2?	1?	—
	(7 *)	(6 *)	—	(1)	—	—	(2 *)	—	(6*)	(5 *)	(1 *)

* = endemic species.
T = occurs also in Tonkin.
M = occurs also in the Malay Peninsula or in the Sunda Islands.